Papilionaceae. The author believes that certain of the mycotropic forms are limited to acid soils because of the use, through the help of their mycorrhiza, of organic nitrogen compounds, and these are most abundant in absence of lime. —WM. CROCKER.

Hybrids of maize.—COLLINS[18] makes a contribution to the genetics of maize by reporting results from his studies of hybrids between pod corn and a type discovered by Dr. W. B. GERNERT, in which the pistillate inflorescence is replaced by a compound inflorescence branched as is ordinarily the case with the tassel.

In his experiments the progeny of ordinary *tunicata* plants has always consisted of approximately 3 tunicates to 1 normal. In other words, the usual tunicate ear is a heterozygous dominant. The homozygous dominant is apparently a type which makes up about one-third of the total number of tunicate plants and is characterized by greatly enlarged tassels containing both staminate and pistillate flowers, and the ear either with enlarged sterile spikelets or wanting. *Zea ramosa*, on the other hand, is recessive to normal.

In 1914 a cross was made between half-tunicate (heterozygous) ♂ and *Zea ramosa* ♀. Of 9 first generation plants, 4 were tunicate and 5 normal, the tunicate ears being "half-tunicate" and showing no trace of *ramosa* characters. From 2 selfed F_1 non-tunicate ears 85 plants were raised, of which 65 were normal and 17 *ramosa*. From 3 selfed F_1 half-tunicate ears 326 plants matured. Among the *tunicata* plants of this lot there were both *tunicata* and *ramosa* tassels, and in the latter a new type appeared which had indeterminately branched inflorescences embryonic in nature. This peculiar type (termed cauliflower) occurred in both lateral and terminal inflorescences, although more common in the former. A simple Mendelian interpretation of these results is given.—E. M. EAST.

A New Zealand biological station.—Canterbury College has recently set apart a tract of land in the mountainous center of South Island, New Zealand, and provided it with buildings suitable for a biological station. It is situated at an altitude of 1850 ft. on the Cass River and is surrounded by mountains, some of which are over 5000 ft. high. Descriptions of its situation,[19] its physiography,[20] and its vegetation[21] seem to show that it is well suited to the purpose for which it was intended. The vegetation displays a wide

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[18] COLLINS, G. N., Hybrids of *Zea ramosa* and *Z. tunicata*. Jour. Agric. Research **9**:383–395. *pls. 13–21*.

[19] CHILTON, CHAS., Introduction and general description of station. Trans. New Zealand Inst. **47**:331–335. 1915.

[20] SPEIGHT, R., The physiography of the Cass district. *Ibid*. **48**:145–153. 1916.

[21] COCKAYNE, L., The principal plant associations in the immediate vicinity of the station. *Ibid*. **48**:166–186. 1916.